FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE: FEBRUARY 1999
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATION

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
TOTAL PROGRAM ELEMENT	33.945	23.718	17.336	19.676	20.147	21.052	22.745	24.150	Cont	Cont
#1: User-Source Link	4.646	3.888	3.848	0.000	0.000	0.000	0.000	0.000	0.000	12.382
#2: Rule-based Decisions	2.226	2.293	2.089	0.000	0.000	0.000	0.000	0.000	0.000	6.608
#3: Material Acquisition: Electronics	4.257	4.985	5.229	6.013	6.196	6.386	6.386	6.357	Cont	12.374
#4: Advanced Logistics Support	2.901	3.789	3.848	1.836	0.000	0.000	0.000	0.000	0.000	3.596
#5: Advanced Technology Integrator	1.741	1.855	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.601
#6: Intelligent Demand Manager	0.000	0.000	1.424	1.975	1.989	2.145	2.192	2.234	Cont	Cont
#7: Computer to Computer Negotiations	0.000	0.000	0.000	2.339	3.204	3.264	3.151	2.251	Cont	Cont
#8: Pay Per Use Logistics System	0.000	0.000	0.000	1.465	2.385	2.413	2.492	1.967	Cont	Cont
#9: Aging Aircraft Sustainment Technology	0.000	0.000	0.000	4.074	4.383	4.830	5.200	5.443	Cont	Cont
#10: Virtual Reality Medical Assembly	0.000	0.000	0.000	1.974	1.990	2.014	2.050	2.093	Cont	Cont
#11: Future Logistics R&D Requirements	0.000	0.000	0.000	0.000	0.000	0.000	1.274	3.805	Cont	Cont
#12: On Demand Manufacturing/CATT	5.783	6.908	0.898	0.000	0.000	0.000	0.000	0.000	0.000	13.589
#13: Gulf Coast Maritime Center	2.884	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.884
#14: Defense MicroElectronics Activity	9.507	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.507

A. Mission Description & Budget Item Justification: The DoD logistics vision calls for providing flexible, cost effective and prompt materiel support, logistics information and services, achieving the leanest possible infrastructure and the employment of the best commercial and government sources and practices. The DLA Logistics R&D program will develop and demonstrate high risk, high payoff technology that will provide a significantly higher level of support at lower costs, than would be otherwise attainable. The DLA program is a key part of the DARPA/DLA Advanced Logistics Program. Focused Logistics is one of the five basic tenants of Joint Vision 2010. The DLA logistics R&D program contributes directly to achieving JV 2010's vision of logistics "support in hours or days versus weeks." The objective of the Advanced Logistics Program is to collaborative environment which will allow the Operations community (J3) and Logistics planning community (J4), TRANSCOM, and DLA to seamlessly interact on operations planning and execution of wartime operations. In addition, DLA will use the same system in peacetime to significantly reduce Logistics Response Time and reduce the cost of DLA operations while maintaining readiness.

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#1 USER-SOURCE LINK: Effort links DoD parts consumers with suppliers, enabling users to decide on price, quality, packaging, quantity, and ordering. Effort will significantly reduce DLA's overhead and inventory costs as more direct vendor deliveries will be attainable. The program provided the technical infrastructure for the DoD EMALL.

#2 RULE-BASED DECISIONS: Automates decision processes in buying, cataloging and item management that are strictly rule-based, to increase turnarounds and decreasing labor costs. First thrust concentrates on procurement activities, followed by item management and cataloging functions.

#3 MATERIAL ACQUISITIONS: ELECTRONICS: Will fund continued enhancement of Generalized Emulation of Microcircuits effort and continue the Advanced Microcircuit Emulation (AME) which started in FY 97. Program reduces weapons system support costs by providing an alternative to circuit board redesigns and lifetime buys. To date, GEM has delivered 14,000 microcircuits of 140 different types to 31 different weapon systems.

#4 ADVANCED TECHNOLOGY LOGISTICS SUPPORT NETWORK (ATSN): Effort develops a total logistics approach to applying advanced decision supports to center's goals well into the next century. Emphasis on cost-effective resourcing for wartime needs, customer choices, and fast, predictable deliveries.

#5 ADVANCED TECHNOLOGY INTEGRATOR: Will demonstrate prototypes of new material handling and distribution equipment in DoD depots prior to full scale implementation. Targets are storage, distribution and receiving processes, incorporating automatic identification technologies.

#6 INTELLIGENT DEMAND MANAGER: Will demonstrate improved wholesale supply availability that can be attained from real time tracking of spares consumption at the lowest level of the supply system by developing advanced data mining and data visualization technologies.

#7 COMPUTER TO COMPUTER NEGOTIATIONS: Will reduce the time to negotiate, award, and modify contracts, to enable DLA and its suppliers to respond rapidly to changes in supply and demand in peace and war by allowing machines to reconcile selected differences between the government and suppliers.

#8 PAY PER USE LOGISTICS SYSTEM: Will develop flexible, cost effective alternatives to software development that overcome the delays and expense associated with traditional logistics systems development.

#9 AGING AIRCRAFT SUSTAINMENT TECHNOLOGY: Aging systems take progressively more time and money to maintain. This program develops, tests and transfers cost effective logistics support technologies on such systems as B-52, KC-135, and C-130 and other aircraft and related systems that remain in use well beyond their design life.

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#10 VIRTUAL MEDICAL ASSEMBLY: Lower costs in assembly process, by allowing users to accurately visualize form, fit, function and utility before investing large sums of money to procure the assemblies.

#11 FUTURE LOGISTICS R&D REQUIREMENTS: These funds will accelerate the transition of technology to the DLA, so that dramatic improvements in supply support can be undertaken. The alternative is for the Agency to slowly follow in the footsteps of Commercial supply practices, rather than to be the leader in Logistics effectiveness and military readiness.

#12 ON DEMAND MANUFACTURING/CATT: This program has established a network of suppliers and technology for long lead time, difficult to procure, weapons systems spares. FY 00 is the final year of the program.

#13 GULF COAST MARITIME CENTER: Develop simulations based design systems.

#14 DEFENSE MICROELECTRONICS ACTIVITY: Addresses DoD microelectronics problems by redesigning or re-engineering printed wiring assemblies and higher level electronics subsystems.

B. Program Change Summary:

	COST IN MILLIONS			
	FY 98	FY 99	FY 00	FY 01
President's Budget Submission:	21.554	17.788	18.210	18.594
Adjustment to Appropriated Value:	+12.391	+5.930	-.874	+1.082
Current Budget Submission:	33.945	23.718	17.336	19.676

Change Summary Explanation: FY 98 reflects +$12.391 million for two DoD internal realignments from DARPA to DLA for Gulf Coast Maritime Center (+2.884) and the Defense Microelectronics Activity (+9.507). FY 99 net adjustment reflects a congressional add, +$6 million for CATT and -$70 thousand in congressional undistributed reductions. FY 00 and FY 01 relfect the net of re-scoped/new project(s) emphasis and inflation reductions.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999

APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#1: USER-SOURCE LINK	4.646	3.888	3.848	0.000	0.000	0.000	0.000	0.000	0.000	12.382

A. Mission Description and Justification

User-Source Link will dramatically change the current logistical system as it exists today. DLA will offer users choices on sourcing, packaging, quality levels and shipping that were previously decided by our Inventory Control Points. The user will also be able to place the order on a pre-negotiated price schedule established by DLA. This will be accomplished by linking the user of parts with the suppliers. The initial phase will involve linking users to suppliers through a set of query servers. This will eliminate the need for suppliers to continually provide product information updates to the Government. Instead, the query servers will go to the suppliers organic product databases and retrieve the information for the user. The final phase of this effort will involve the use of "Agents." Software agents will travel between suppliers catalogs retrieving the information requested by the user without the use of query servers.

This project is needed to provide the DoD's customers with the information they need to make an informed buying decision. It will enable DLA to significantly reduce its overhead costs which are ultimately passed on to our customers. More direct vendor deliveries will result from this link which will reduce inventories. The use of suppliers part data will reduce the need for establishing NSNs and other cataloging data. Post-acquisition support problems and the resources necessary to solve them will go down as the users can interactively make their specific requirements known.
(U) Program Accomplishments and Plans:
(U) FY 1998:
  All DLA managed items will be visible and available to order by DLA customers regardless of whether the stock is held by DLA Depots or in private industry's finished goods inventory. The US Link technology was transferred into the production EMALL system which is being deployed DoD-Wide.
(U) FY 1999:
  Will demonstrate capability to use XML business transactions.
(U) FY 2000:
  Final development capability using highly distributed catalogs for EMALL.
(U) FY 2001: N/A

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RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 1999								
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON								
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#1: USER-SOURCE LINK	4.646	3.888	3.848	0.000	0.000	0.000	0.000	0.000	0.000	12.382

B. Program Change Summary:

```
                                        COST IN MILLIONS
                           FY 98        FY 99        FY 00        FY 01
President's Budget Submission   4.646        3.900        3.900        0.000
Adjustment to Appropriated Value -----       -.012        -.052        -----
Current Budget Submission   4.646        3.888        3.848        0.000
```

Change Summary Explanation: N/A

C. Other Program Funding Summary:
     No funding dependencies on other programs.
     Related programs: ARPA's Fast program (PE #62301E); ARPA's Advanced Logistics program P.E.

D. Schedule Profile:
     US LINK will test links among DLA Inventory Control Points and Navy/Army/AF customer sites, and private industry.

```
                                        FY 98        FY 99        FY 00
               Quarters                 1234         1234         1234
Phase I:    Add Vendors/DLA Items       X
Phase I:    Continue Query—server software development  X
Phase I:    DLA beta-test initial demo  XXXX
Phase II:   Army/Navy/AF/USMC beta-test demo  XX
Phase II:   Agent Development Solicitation & Award          X            X
Phase II:   Agent Beta Testing                      XXX
Phase II:   XML Demonstrations                      XX
Phase II:   Deploy final fully distributed capability             XXXX
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RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#2: AUTOMATE RULE-BASED DECISIONS	2.226	2.293	2.089	0.000	0.000	0.000	0.000	0.000	0.000	6.608

A. Mission Description and Justification

The system being developed under the Automated Rule Based Decision thrust is called DELTA. The DELTA system shall improve DLA's business practices by enabling the DLA to move away from its current business practice of procuring items one requisition at a time (usually as the DLA customers' needs arise). This will be accomplished by:

1. Creation, maintenance, and utilization of an electronic portfolio of best EDI/EC business practices and their related long term arrangements with suppliers.
2. Enabling the negotiating long term flexible business arrangements ahead of time with leading industry suppliers and third party supply chain management logistician.
4. Allowing customers to execute purchasing actions interactively against these arrangements.
5. Electronically executing purchasing actions against such arrangements, without human interaction, based on electronically stored source selection rules about customer preferences.
6. Utilizing cutting edge technology (including: knowledge acquisition; expert systems; case based reasoning; natural language processing; CORBA information agents, mediators and sentinels) to accomplish the above.

(U) Program Accomplishments and Plans:
(U) FY 1998:
    Developed the Single user registration system which was first implemented in the DLA Electronic Mall.
    Developed the Modular Order Management system which was first implemented in the DLA Electronic Mall.
    Processing bulk requirements that are mechanically generated by the Service supply systems against the same commercial sources of supply available to the EMALL, in a non-interactive mode (without human intervention of any kind).
    DELTA will be the first prototype of the DARPA cluster architecture, which is the highly distributed agent based architecture being developed under the Advanced Logistics Program.
(U) FY 1999:
    Processing bulk requirements that are mechanically generated by the Service supply systems against government owned inventory, bypassing the need for legacy system processing of customer requirements that are to be filled from DLA Depots.

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APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#2: AUTOMATE RULE-BASED DECISIONS	2.226	2.293	2.089	0.000	0.000	0.000	0.000	0.000	0.000	6.608

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(U) Program Accomplishments and Plans (con't):
(U)   FY 2000:
   Integration of best of commercial practices in Supply Chain Management into the DLA operational business processes.
(U)   FY 2001:  N/A


B.   Program Change Summary:
                                            COST IN MILLIONS
                                   FY 98        FY 99        FY 00        FY 01
President's Budget Submission      2.226        2.300        1.900        0.000
Adjustment to Appropriated Value   -----       -0.007       +.189        -----
Current Budget Submission          2.226        2.293        2.089        0.000

Change Summary Explanation:  FY 00 reflects added scope of effort.

C.   Other Program Funding Summary:
     No funding dependencies on other programs.
     Related programs:  ARPA's Intelligent Integration of Information (I-3) program (PE #62301E) Knowledge Sharing
Initiative.
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APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON									
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#2: AUTOMATE RULE-BASED DECISIONS	2.226	2.293	2.089	0.000	0.000	0.000	0.000	0.000	0.000	6.608

```
D.   Schedule Profile:

                                                FY 98      FY 99      FY 00      FY 01
                          QUARTERS              1234       1234       1234       1234
Bulk Requirement processing (commercial sources)   XXXX
Bulk Requirements processing (government sources              XXXX
Requirements assessment of Best Commercial Practices  XXXX
Component development of Best Commercial Practices            XXXX
Testing and development of Best Commercial Practices                    XXX
Prototype delivery                                                              X
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APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#3: MATERIAL ACQUISITION: ELECTRONICS	4.257	4.985	5.229	6.013	6.196	6.386	6.386	6.357	Cont	Cont

A. Mission Description and Justification

Develop a capability to emulate most obsolete digital integrated circuits (ICs) in the federal catalog using a single, flexible manufacturing line. DoD has estimated that $2.9B is spent every five years in redesigning circuit card assemblies. Much of these redesigns are driven by IC obsolescence. The commercial suppliers of ICs typically terminate production lines every 3 years or less, moving on to the next generation of ICs. Because DoD maintains weapons systems much longer than 3 years, this creates an obsolescence problem that can only be overcome through buying excessive inventories of parts before the production lines close or redesigning the next higher assembly to eliminate the obsolete part. DLA, as the manager of over 80% of the IC supply class, must have a capability to manufacture these devices. This project will develop this capability and expand it to succeeding generations of obsolete ICs through the Advanced Microcircuit Emulation program.

(U) Program Achievements and Plans:

(U) FY 1998:
   Development and demonstration of emulated microcircuits needed for the following systems: F-14, F-15, F-16, F-18, JTIDS, UYK-43, UYK-44, SPACE SHUTTLE, TRIDENT, BSY-2, AWACS, CG-47, DSCC(various users). Delivered or in-processed 100 additional IC types. Approximately 10,000 additional parts delivered. Developed four early microprocessors, inserted a microprocessor into JSTARS. Successfully produced first 50K gate emulation wafers. Designed advance geometry emulation array. Designed high voltage emulation process. Also developing technology for ASICs, LSI, VLSI, and Analog devices.
(U) FY 1999:
   Develop and demonstrate ASIC and Generalized Microprocessor Emulations. Continual cost reduction for ASIC emulation.
(U) FY 2000:
   Develop and demonstrate 100K ASIC with 128K memory. Continual cost reduction for ASIC emulation.
(U) FY 2001:
   Develop and demonstrate Advanced Fabrication Processes and 200K Gate Array Capability. Continual cost reduction for ASIC emulation.

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COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#3: MATERIAL ACQUISITION: ELECTRONICS	4.257	4.985	5.229	6.013	6.196	6.386	6.386	6.357	Cont	Cont

B. Program Change Summary:

COST IN MILLIONS

	FY 98	FY 99	FY 00	FY 01
President's Budget Submission	4.257	5.000	5.500	6.100
Adjustment to Appropriated Value	-----	-.015	-.271	-.087
Current Budget Submission	4.257	4.985	5.229	6.013

Change Summary Explanation: FY 00 reflects agency below threshold program adjustments and an inflation reduction. FY 01 and outyears reflect revised indices.

C. Other Program Funding Summary: No funding dependencies on other programs. No related programs.

D. Schedule Profile: The AME Program will eliminate the need to redesign in many cases by producing a form, fit, and function "drop-in" replacement for the old microcircuits using current technology. The Generalized Emulationof Microcircuit (GEM) Production Program addresses the microcircuits built in the 1960s-1970s. The AME Program addresses the 1980s and early 1990s devices.

	FY 98	FY 99	FY 00	FY 01
Quarters	1234	1234	1234	1234
AME Baseline	X			
Initiate ASIC characterization process	X			
Demonstrate High Speed	X			
Demonstrate High Voltage	X			
Demonstrate ASIC emulation		X		
Demonstrate Generalized Microprocessor Emulation		X		
Demonstrate 100K ASIC + 128K memory			X	
Demonstrate advanced fabrication process				X
Demonstrate 200K gate capability				X
Cost reduction for ASIC emulation	XXXX	XXXX	XXXX	XXXX

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APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#4: ADVANCED TECHNOLOGY LOGISTICS SUPPORT NETWORK	2.901	3.789	3.848	1.836	0.000	0.000	0.000	0.000	0.000	12.374

A. Mission Description and Justification

Advanced Technology Logistics Support Network initiative will reduce DoD inventory requirements by substituting immediate access to commercial sector inventories for stocks held in DoD warehouses. Its objectives include creating a virtual inventory by tapping into worldwide commercial inventories; providing a full array of leveraged prices; providing a variety of delivery methods; providing graphics and on line help which will allow customers to fully explore an item's specifications, warranty and past performance; and creating a seamless catalog which integrates commercial catalog data with DLA negotiated prices. The program proposal seeks to allow DoD customers to conduct business on the Internet; utilize application scanners to remove the barriers of software language; link databases across government and industry via hyperlink technologies; and finally use hypertext markup language to merge government database information onto the Internet.
   The ATSN program has far reaching applicability in allowing DLA and its customers to fully capitalize on the logistics related information technology advancements currently available. The program will bring this advanced technology to both peacetime customer support and mobilization support. These new technologies are critical elements to the achievement of DLA's programmed outyear savings in conjunction with implementation of reengineering initiatives and acquisition reform.

(U) Program Accomplishments and Plans:

(U) FY 1998:
   Establish models for readiness based industrial inventories. Develop capability to estimate industrial capability to
   support emergency needs for medical items.
(U) FY 1999: Expand coverage and readiness models to other commodities.
(U) FY 2000: Continue expanded coverage and readiness models to other commodities.
(U) FY 2001: Continue expanded coverage and readiness models to other commodities.

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APPROPRIATION/BUDGET ACTIVITY:	Program Element:
RTD&E, Defense-Wide/Budget Activity 3	0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#4: ADVANCED TECHNOLOGY LOGISTICS SUPPORT NETWORK	2.901	3.789	3.848	1.836	0.000	0.000	0.000	0.000	0.000	12.374

B. Program Change Summary:

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                                        COST IN MILLIONS
                              FY 98       FY 99       FY 00       FY 01
President's Budget Submission 2.901       3.800       3.900       1.900
Adjustment to Appropriated Value -----    -.011       -.052       -.064
Current Budget Submission     2.901       3.789       3.848       1.836
```

Change Summary Explanation: FYs 00 and 01 net adjustments reflect inflation reductions.

C. Other Program Funding Summary:
   No funding dependencies on other programs.
   ARPA's FAST program (PE #62301E); ARPA's Intelligent Integration of Information (I-3) (PE #62301E) program.

D. Schedule Profile: DLA's Defense Personnel Supply Center (DPSC) will manage the ATSN program. Will implement communications network developed under US Link. Objectives include reduction in customer delivery time variances from 50% to 3%, reduced inventories (both retail & wholesale), on-line requisition status, and lower unit prices.

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                              FY 98       FY 99       FY 00       FY 01
              Quarters        1234        1234        1234        1234
Process integration           XX
Additional C&T commodities                XXXX
Hardware commodities                                  XXXX        XXXX
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COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#5: ADVANCED TECHNOLOGY INTEGRATOR	1.741	1.855	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.596

A. Mission Description and Justification:

The DoD has pursued material handling and distribution technologies in the past by identifying promising commercial technologies and installing them in our depots, many times in the absence of quantifiable benefits. This has resulted in identified challenges concerning realistic benefits, system interoperability, and resource/personnel capability. The Advanced Technology Integrator will eliminate these problems by providing a "try before you fly" capability where equipment can be simulated in a live depot environment prior to full-scale implementation. A demonstration center would be created. Tasks would be executed by the center in order to fully evaluate promising technologies or new concepts.
   The impact of the Advanced Technology Integrator would be lower depot overhead costs associated with the receiving, storage, and issuing processes.

(U) Program Achievements and Plans:

(U) FY 1998:
    Examined feasibility of PC based routing algorithms.
    Studied radio tag technology for inventory accounting.
    Developed direct link between depot material release orders and EMALL.
    Established feasibility of Depot based kitting.
(U) FY 1999:
    Begin data mining activity for advanced supply centers and depot operations.
(U) FY 2000: N/A
(U) FY 2001: N/A

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COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#5: ADVANCED TECHNOLOGY INTEGRATOR	1.741	1.855	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.596

B. Program Change Summary:

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                                     COST IN MILLIONS
                            FY 98      FY 99      FY 00      FY 01
President's Budget Submission 1.741     1.860      2.100      2.500
Adjustment to Appropriated Value -----    -.005     -2.100     -2.500
Current Budget Submission      1.741     1.855      0.000      0.000
```

Change Summary Explanation: Funding reallocated to accommodate higher priority R&D requirements.

C. Other Program Funding Summary:
    No funding dependencies on other programs.

D. Schedule Profile: The Advanced Technology Integrator (ATI) is an innovative concept designed to identify gaps in commercial technology prior to acquisition and full scale implementation. ATI will foster the advancement of material handling and automatic identification technologies that will benefit the DLA/DoD distribution community.

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                                FY 98      FY 99      FY 00      FY 01
            Quarters            1234       1234       1234       1234
Direct material release orders from Depots  XX
EMALL kitting                    X          XX
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FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)			DATE: FEBRUARY 1999							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3			**Program Element:** 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#6: INTELLIGENT DEMAND MANAGER	0.000	0.000	1.424	1.975	1.989	2.145	2.192	2.234	Cont	Cont

A. Mission Description and Justification

The use of artificial intelligence for managing items--has been explored in the past, but changes in information technology environment and data availability could significantly increase the potential to better manage items and anticipate demands from customers. This will most likely have a significant benefit for the management of Numerical Stock Objective items.

(U) Program Accomplishments and Plans:

(U) FY 1998: N/A
(U) FY 1999: N/A
(U) FY 2000:
Analysis tools--Starlight and Data Mining--how can we exploit these technologies to identify relationships that can be used to more accurately project demand--especially on new systems entering the inventory or on proven systems where unforecasted demand may occur due to aging weapon systems. This will require the use of simulation models such as PARIS to evaluate alternate scenarios, cost trade-offs, and inventory management policy decisions.
(U) FY 2001:
Distribution resource planning will exploit total asset visibility to make inventory a scheduling problem for replenishment type items. It will be used in commercial applications for high volume/recurring demand items. It anticipates and takes proactive action before demands actually occur.
Assessment--joint action with the Services to use their multi-echelon, multi-indenture models to project consumable requirements, develop availability curves, determine funding requirements, and project wartime/peacetime demands. Information could "feed" ICIS instead of DLA attempting to develop its own set of models.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)			DATE: FEBRUARY 1999							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3			Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#6: INTELLIGENT DEMAND MANAGER	0.000	0.000	1.424	1.975	1.989	2.145	2.192	2.234	Cont	Cont

B. Program Change Summary:

```
                                       COST IN MILLIONS
                                 FY 98      FY 99      FY 00      FY 01
President's Budget Submission    0.000      0.000      0.000      0.000
Adjustment to Appropriated Value                       +1.424     +1.975
Current Budget Submission        0.000      0.000      1.424      1.975
```

Change Summary Explanation: New project.

C. Other Program Funding Summary: No funding dependencies.

```
D.  Schedule Profile:               FY 98      FY 99      FY 00      FY 01
              Quarters              1234       1234       1234       1234
Formulate the BAA announcement                 XX
Open the BAA                                     XX
Awards for concept studies                                 X
Awards for prototype development                            XXX
Prototype development                                      XXXX       XXXX
```

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)				DATE: FEBRUARY 1999							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3				Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#7: COMPUTER TO COMPUTER NEGOTIATIONS	0.000	0.000	0.000	2.339	3.204	3.264	3.151	2.251	Cont	Cont

A. Mission Description and Justification

Long lead times for establishing long-term logistics support contracts do not allow DLA business managers to react to rapidly changing requirements in supply change management. The purpose of this project is to use knowledge base, rule base, and intelligent work flow technologies to enable computers to duplicate the decision making process of humans when negotiating and executing contracts. This will reduce the lead-time required to establish these contracts and contribute to a paperless environment.

(U) Program Accomplishments and Plans:
(U) FY 1998: N/A
(U) FY 1999: N/A
(U) FY 2000: N/A
(U) FY 2001: Phase I initial identification areas for application/integration of knowledge base, rule base, and intelligent work flow technologies.

B. Program Change Summary:

	FY 98	FY 99	FY 99	FY 01
President's Budget Submission	0.000	0.000	0.000	0.000
Adjustment to Appropriated Value	-----	-----	-----	+2.339
Current Budget Submission	0.000	0.000	0.000	2.339

Change Summary Explanation: New project per Agency TOA re-distribution.

C. Other Program Funding Summary: No funding dependencies.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999								
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON								
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#7: COMPUTER TO COMPUTER NEGOTIATIONS	0.000	0.000	0.000	2.339	3.204	3.264	3.151	2.251	Cont	Cont

```
D.   Schedule Profile:
                                     FY 98       FY 99       FY 00       FY 01
             Quarters                1234        1234        1234        1234
Formulate the BAA announcement                               XX
Open the BAA                                                   XX
Awards for concept studies                                               X
Awards for prototype development                                          XXX
Prototype Development                                                    XXXX
```

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999

APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#8: PAY PER USE LOGISTICS SYSTEM	0.000	0.000	0.000	1.465	2.385	2.413	2.492	1.967	Cont	Cont

A. Mission Description and Justification

Current DoD computer systems are large, inflexible, difficult to maintain and seemingly impossible to keep current with emerging technology. For example, the supply system still uses 80 card column transaction sets based on 40 year old technology. One cause of this stagnation is that these systems are monolithic programs that have evolved over time to meet changing needs. Modernization of these systems has been hindered by the high cost to modernize and the fact that much of the functionality is not well documented or understood.

Emergence of network computing holds the promise of providing the flexibility and modularity needed to incrementally modernize DoD logistics systems and simultaneously provide an opportunity for a radical change in the way computer operations are financed. The Pay Per Use program objective is to demonstrate the costs and flexibility advantages of large scale, highly distributed networks in addressing not only the technical problem associated with logistics systems modernization, but also the cost advantages of designing a system based on the concept of "Pay per Use". Pay per Use means that the functional organization using a computer system pays a fixed rate only for actual use of the system. This approach is analogous to the emerging acquisition strategy of "power by the hour", where the Air Force, rather than buying and owning jet engines are paying a set rate per hour for engine use. Similarly, Pay Per Use program users would only be charged for the time that the functional application was actually being used. Ideally, the end user would have choice among different COTS vendors for the same application.

(U) Program Accomplishments and Plans:
(U) FY 1998: N/A
(U) FY 1999: N/A
(U) FY 2000: N/A
(U) FY 2001: Initial awards will be made for concept studies. The concepts will be evaluated and prototypes will begin to be developed.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999								
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON								
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#8: PAY PER USE LOGISTICS SYSTEM	0.000	0.000	0.000	1.465	2.385	2.413	2.492	1.967	Cont	Cont

B.   Program Change Summary:

```
                                        COST IN MILLIONS
                               FY 98        FY 99        FY 00        FY 01
President's Budget Submission  0.000        0.000        0.000        0.000
Adjustment to Appropriated Value                                      +1.465
Current Budget Submission      0.000        0.000        0.000        1.465
```

Change Summary Explanation: New project per POM TOA Agency re-distribution.

C.   Other Program Funding Summary: No funding dependencies.

```
D.   Schedule Profile:              FY 98        FY 99        FY 00        FY 01
            Quarters                1234         1234         1234         1234
Formulate the BAA announcement                                XX
Open the BAA                                                    XX
Awards for concept studies                                                 X
Awards for prototype development                                           XXX
Prototype development                                                      XXX
```

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999

APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#9: AGING AIRCRAFT SUSTAINMENT TECH.	0.000	0.000	0.000	4.074	4.383	4.830	5.200	5.443	Cont	Cont

A. Mission Description and Justification:

Weapon systems, particularly aircraft, are staying in the inventory much longer than originally anticipated. For example, the KC-135 had a 40 year design life and is now planning to stay in service for 86 years. Similar life extensions also apply to the B-52 and the C-130. The result is often aircraft parts that were never planned to be replaced have to be procured and placed on the airplane. Unfortunately, the technical data, manufacturing processes and supplier base that originally provided these items are no longer available. These circumstances lead to unacceptably long logistics response times and increased costs.

A completely new strategy is needed to address this problem. It must encompass not only the design associated with re-engineering the item but also manufacturing techniques that can produce very low quantity items in a cost effective manner. A partnership among the DoD, manufacturing industries and academia has proven most effective in addressing the problem. Past models have shown that lead-times can be reduced from 273 days to 97 days for complex parts, new suppliers can be added to the base and costs significantly reduced.

(U) Program Accomplishments and Plans:
(U) FY 1998: N/A
(U) FY 1999: N/A
(U) FY 2000: N/A
(U) FY 2001: Based on preliminary studies the technologies needed to sustain aircraft that are in service longer than their design life will be identified. Development of better ways of sustainment will be started.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999

APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#9: AGING AIRCRAFT SUSTAINMENT TECH.	0.000	0.000	0.000	4.074	4.383	4.830	5.200	5.443	Cont	Cont

B.   Program Change Summary:

```
                                          COST IN MILLIONS
                                FY 98       FY 99       FY 00       FY 01
President's Budget Submission   0.000       0.000       0.000       0.000
Adjustment to Appropriated Value -----      -----      +4.074      +4.383
Current Budget Submission       0.000       0.000       4.074       4.383
```

Change Summary Explanation: New project.

C.   Other Program Funding Summary: No funding dependencies.

D.   Schedule Profile:

```
                                FY 98       FY 99       FY 00       FY 01
            Quarters            1234        1234        1234        1234

Formulate BAA Announcement                                X
Open BAA                                                  XX          XXXX
Awards for concept development                                        X
Awards for prototype development                                      XXXX
Prototype Development                                                 XXXX
```

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999								
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON								
COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#10: VIRTUAL REALITY MEDICAL ASSEMBLY	0.000	0.000	0.000	1.974	1.990	2.014	2.050	2.093	Cont	Cont

A. Mission Description and Justification:

Defense Supply Center, Philadelphia (DSCP) has the responsibility to procure Medical Assemblies for the Services. These Medical Assemblies are complex in nature and change frequently to accommodate new types of form, fit, function, and utility. This program will attempt to utilize virtual reality technology to reduce lead times, to reduce the logistics footprint, and to reduce overall assembly life-cycle costs.

DSCP will begin the effort in the FY 01 timeframe. During FY 01, Joint Application Development (JAD) sessions will be held to formalize requirements. Market analysis will be performed to identify the most appropriate virtual reality technology to employ, and detailed system specifications will be created. In FY 02, a prototype of first-aid kits will be developed. In addition, formal requirements will be developed for a more complex medical assembly. In FY 03, the first-aid kit assembly will be made ready for a production environment, the more complex medical assembly will be prototyped, and commercial data interfaces will be established. In FY 04, DSCP will prototype an entire field hospital assembly and will look to apply the technology to other processes within DLA. In FY 05, DSCP plans for full scale production and demonstrations.

(U) Program Accomplishments and Plans:
(U) FY 1998: N/A
(U) FY 1999: N/A
(U) FY 2000: N/A
(U) FY 2001: The studies for Virtual Medical Assembly will be awarded and prototypes will begin to be developed.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)		DATE: FEBRUARY 1999							
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3		Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON							

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#10: VIRTUAL REALITY MEDICAL ASSEMBLY	0.000	0.000	0.000	1.974	1.990	2.014	2.050	2.093	Cont	Cont

B.   Program Change Summary: N/A

```
                                        COST IN MILLIONS
                          FY 98      FY 99      FY 00      FY 01
President's Budget Submission    0.000      0.000      0.000      0.000
Adjustment to Appropriated Value                       +1.974     +1.990
Current Budget Submission        0.000      0.0000     1.974      1.990
```

Change Summary Explanation: New project.

C.   Other Program Funding Summary: No funding dependencies.

```
D.   Schedule Profile:              FY 98      FY 99      FY 00      FY 01
          Quarters                  1234       1234       1234       1234
Formulate the BAA announcement                            XX
Open the BAA                                                XX
Awards for concept studies                                           X
Awards for prototype development                                     XXX
Prototype development                                                XXXX
```

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999

APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#11: FUTURE LOGISTICS R&D REQUIREMENTS	0.000	0.000	0.000	0.000	0.000	0.000	1.274	3.805	Cont	Cont

A. Mission Description and Justification:

These funds will be used for high risk and high payoff alternatives to the conventional investment programs to improve efficiency and lower costs of acquisition, supply management, and distribution.

(U) Program Achievements and Plans:

(U) FY 1998: N/A
(U) FY 1999: N/A
(U) FY 2000: N/A
(U) FY 2001: N/A

B. Program Change Summary:

	COST IN MILLIONS			
	FY 98	FY 99	FY 00	FY 01
President's Budget Submission	0.000	0.000	0.000	7.147
Adjustment to Appropriated Value	-----	-----	-----	-7.147
Current Budget Submission	0.000	0.000	0.000	0.000

Change Summary Explanation: FY 01 reflects 7.1 million reduction in order to fund emerging technology opportunities.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999

APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#11: FUTURE LOGISTICS R&D REQUIREMENTS	0.000	0.000	0.000	0.000	0.000	0.000	1.274	3.805	Cont	Cont

C.   Other Program Funding Summary: None

D.   Schedule Profile:

	FY 98	FY 99	FY 00	FY 01
Quarters	1234	1234	1234	1234
Develop Continuing Logistics Technology Plans	XXXX	XXXX		

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#12: ON DEMAND MANUFACTURING/CATT	5.783	6.908	0.898	0.000	0.000	0.000	0.000	0.000	0.000	13.589

A. Mission Description and Justification:

This initiative is necessary to identify and establish commercial manufacturing capabilities so that DLA Centerscan acquire parts as they are needed (on demand) rather than investing in excessive stock, or risking non-availability of essential parts when needed. Contracting relationships will be established to obtain small quantities of military unique items of low demand, with significantly lower costs and greatly improved response time. This is an effort to use private sector manufacturers, in addition to all other measures to obtain parts quickly. In FY98 it builds a program related to the USAF Computer Aided Technology Transfer (CATT) program. CATT establishes a network of companies to produce parts in a very short production lead time with minimum administration.

(U) Program Achievements and Plans:
(U) FY 1998:
    Advanced tools for identifying ODM candidates were developed.
    Tools for macro-grouping fielded based on natural language programming and logic programming.
    Begin CATT manufacturing network in Oklahoma.
(U) FY 1999:
    Award model contract for ODM buying capability and capacity field tools for ODM division support.
(U) FY 2000: Continue capacity field tools for ODM division support.
(U) FY 2001: N/A

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#12: ON DEMAND MANUFACTURING/CATT	5.783	6.908	0.898	0.000	0.000	0.000	0.000	0.000	0.000	13.589

B.   Program Change Summary:

	COST IN MILLIONS			
	FY 98	FY 99	FY 00	FY 01
President's Budget Submission	5.783	0.928	0.910	0.947
Adjustments to Appropriated Value	-----	+5.980	-.012	-0.947
Current Budget Submission	5.783	6.908	0.898	0.000

Change Summary Explanation: FY 99 net adjustment reflects a $6 million congressional add for CATT, and congressional undistributed reductions. FY 00 reflects an inflation reduction. FY 01 reflects .947 millionreduction in order to accommodate higher priority research needs.

D.   Schedule Profile:

	FY 98	FY 99	FY 00	FY 01
Quarters	1234	1234	1234	1234
Continue work at centers to develop contractual vehicles with industry	XXX			
Begin funding USAF related efforts (CATT)	XX	X		
Establish ODM on EMALL		X		

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999								
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON								

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#13: GULF COAST MARITIME	2.884	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.884

A. Mission Description and Justification:

The Gulf Coast Center continued its research, application, and demonstration responsibilities in this effort. The program continued to support industrial, Navy, Defense Advanced Research Project Agency, and Department of Defense initiatives and priorities. The Gulf coast Center continued to jointly develop projects with industrial partners such as Mobile Offshore Base, the CVX, a portfolio for Ship Designs, and other maritime technology demonstration projects.

(U) FY 1998: Simulation Based Design efforts at the Gulf coast Region Maritime Technology Center.

*Awarded new contract to Gulf Coast Center to continue Simulation Based Design activities.
*Maintained state-of-the-art simulated based design with virtual reality technologies
*Maintained open, scalable architecture compatible with HLA requirements established by DoD.
*Established state-of-the-art communications networks to ensure remote site access to the SBD resources as well as distribution to remote sites.
*Assisted industry, government and academic partners in development of prototype systems related to SBD.
*Starting to establish a collaborative design and engineering environment such that optimization of multiple functional parameters, including performance, manufacture, operations, logistics, training, cost, and schedule can be performed.
*Continued to jointly develop projects with industrial partners such as Mobile Offshore Base, support to the CVX, and other maritime technology demonstration projects.

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999								
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON								

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#13: GULF COAST MARITIME	2.884	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.884

B.   Program Change Summary:

```
                                          COST IN MILLIONS
                                  FY 98      FY 99      FY 00      FY 01
President's Budget Submission     0.000      0.000      0.000      0.000
Adjustment to Appropriated Value  +2.884     -----      -----      -----
Current Budget Submission         2.884      0.000      0.000      0.000
```

Change Summary Explanation: FY 98 $2.884 increase reflects ($3.0 million Congressional add, less undistributed reductions) transferred from DARPA to DLA.

D.   Schedule Profile:

```
                                  FY 98      FY 99      FY 00      FY 01
             Quarters             1234       1234       1234       1234
Contract Award                      X
Communications Net established      X         XX
Assist industry                               XXX
```

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	Program Element: 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#14: DEFENSE MICROELECTRONICS ACTIVITY	9.507	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.507

A. Mission Description and Justification:

DMEA's mission is to leverage advanced technologies to extend the life of weapon systems. DMEA is the Executive Agent for DoD Integrated Circuit (IC) Microelectronics Diminishing Manufacturing Sources and Material Shortages (DMSMS). As such, DMEA has identified a set of applies research projects that evaluate the feasibility and practicality of some candidate solutions for a broad class of microelectronic components that are strategically important toDoD. DMEA's RDT&E program is comprised for a mix of studies, investigations and planning efforts for developing solutions to the technological challenges of emerging microcircuit obsolescence using leading-edge microelectronics technology.

(U) Program Accomplishments and Plans:
(U) FY 1998: Develop a methodology for replacing highly complex microcircuits using VHDL, modern synthesis tools, and silicon foundry resources to achieve FFF replacements, minimizing the design methodologies and processes to emulate digital logic, analog, mixed signal and power microelectronic components. Develop and evaluate Virtual Enterprise technology for interfaces, technology-class solutions, and data management and configuration control. Applies to a wide range of systems e.g., F-22, B-2, AWACS, F-16, F-15, F-14, GPS, USQ-113, JAST, MAST, EA-6B, M-65, AN/TSC-93B and AN/GSC-49(V).

B. Program Change Summary: FY 98 increase of $9.507 reflects $10.0 million congressional add less $.493 million in congressional undistributed reductions transferred from DARPA to DLA.

	COST IN MILLIONS			
	FY 98	FY 99	FY 00	FY 01
President's Budget Submission	0.000	0.000	0.000	0.000
Adjustment to Appropriated Value	+9.507	-----	-----	-----
Current Budget Submission	9.507	0.000	0.000	0.000

FY 2000-2001 BIENNIAL BUDGET REVIEW

RDT&E BUDGET PROJECT JUSTIFICATION SHEET (R-2a Exhibit)	DATE: FEBRUARY 1999								
APPROPRIATION/BUDGET ACTIVITY: RTD&E, Defense-Wide/Budget Activity 3	**Program Element:** 0603712S LOGISTICS R&D TECHNOLOGY DEMONSTRATON								

COST (MILLIONS)	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03	FY 04	FY 05	COST TO COMP	TOTAL
#14: DEFENSE MICROELECTRONICS ACTIVITY	9.507	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.507

C. Other Program Funding Summary: No funding dependencies on other programs.

D Schedule Profile:

```
                                     FY 98        FY 99        FY 00        FY 00
            Quarters                 1234         1234         1234         1234
Statement of Work                     X
Implementation plan                    X
Design                                     XX
Fabricate                                  XX
Test                                        X          XX
Qualify                                                XXX
```